

AMENDMENTS TO THE CLAIMS:

Please amend the claims to cancel Claims 1 - 13 and add new Claims 14 - 26 as follows, this listing of the claims will replace all prior versions, and listings, of claims in the application:

Claims 1 - 13 (Canceled)

14. (New) A device for regulating the armature stroke in a reversible linear drive unit comprising:

an excitation coil acted upon by an excitation coil current and providing a magnetic field;

a magnetic armature which is set in linear oscillating motion in an axial direction with a predefined armature stroke by the magnetic field;

means for detecting the actual armature position;

means for measuring the actual excitation coil current;

means for adjusting the excitation coil current during each half-wave of the armature motion in the steady state of the armature; and

the armature being supplied with the amount of energy such that the oscillation amplitudes of the predefined armature stroke are reached.

15. (New) The device according to claim 14, further comprising a spring element coupled to the armature and facilitating the oscillation of the armature.

16. (New) The device according to claim 14, wherein means for adjusting the excitation coil current includes a rectifier circuit and a following bridge circuit with adjustable bridge cross-links in an H-arrangement.

17. (New) The device according to claim 16, wherein the adjustable bridge cross-links are MOSFETS.

18. (New) The device according to claim 16, wherein the measured excitation coil current is supplied as an actual current input quantity to a current regulating module associated with the bridge cross-links, which switches the bridge cross-links such that the actual current signal is tuned to a desired current signal generated by a position regulator module and correlated with the actual armature position following the signal.

19. (New) The device according to claim 18, wherein the actual current signal is supplied to the position regulator module.

20. (New) The device according to claim 14, further comprising means for continuously detecting the direction of motion of the armature.

21. (New) The device according to claim 14, further comprising means for continuously detecting the speed of the armature.

22. (New) The device according to claim 14, further comprising a trigger position for a speed measurement at a fixed position within the armature travel.

23. (New) The device according to claim 22, wherein the trigger position is provided in the area of the maximum speed of the armature.

24. (New) The device according to claim 21, further comprising means for deriving the energy stored in the armature from the speed determination.

25. (New) The device according to claim 14, further comprising means for regulating the oscillation frequency of the armature.

26. (New) The device according to claim 14, wherein the armature is rigidly connected to a pump piston of a compressor.